TaskID	Long	TaskID of the task associated with the model
ModelName	String* 50	Name of the model (informational purposes)
ModelDesc	String* 50	Description of the model (informational purposes)
SysDynModel	String* 50	Filename of the actual system dynamics model
Start	Long	Start time to play modal
Stop	Long	Stop time to play model
Step	Long	Interval at which to play one model step and record data

This information is stored in the model table of the simulation database (ICASim.mdb). All of the values that will need to be manually entered by the student that are passed into the system dynamics model are configured as parameter inputs (PInputs) objects. Every PInput has an interface as detailed below.

Field Name	Data Type	Description
PinputID	long	Primary Key for the table
TaskID	long	TaskID of the task associated with the parameter input
ModelID	long	ID of the model associated with the parameter input
InputName	string*50	Name of the parameter input (informational purposes)
InputDesc	string*255	Description (informational purposes)
ReferenceName	string*50	Name of the spreadsheet cell associated with the parameter input[1]
SimReferenceName	string*50	Name of the associated parameter in the system dynamics model
TutorAware	boolean	Whether the ICA should be notified of any input CHANGES
SourceItemID	ong	SourceItemID of the parameter input
TargetID	long	TargetID of the parameter input
Row	long	Spreadsheet row number of the parameter input
Column	long	Spreadsheet column number of the parameter input
SheetName	string*50	Sheet name were the parameter input is located

All of this information is stored for every parameter input in the PInput table of the simulation database (ICASim.mdb). PInputs consist of one spreadsheet cell that can be populated by a designer at design time or by the GBS application at run time

via the system dynamics engine object's methods. The purpose of the cell is to provide an entry point to the simulation and system dynamics models. An example of an entry point would be the interest rate parameter in the interest calculation example. The ICA is notified of any changes to the cell when an appropriate activity transpires. When the ICA is notified of a change two messages are sent to the ICA. The first is an ICANotifyDestroy message with the parameter input information i.e., SourceItemID, TargetID and null as an attribute. This message is sent to inform the ICA to remove information from its memory. The second message is an ICANotifyCreate message with the parameter input information i.e., SourceItemID, TargetID, Attribute (cell numeric value). This message advises the ICA to add this information to its memory. A PInput table record in accordance with a preferred embodiment is presented below.

PInputID:	12345
TaskID:	123
ModelID:	1
InputName:	Interest Rate input
InputDesc:	Interest Rate input into interest calculation model
ReferenceName:	Interest_Rate
SimReferenceName	Param_Interest_Rate
TutorAware:	True
SourceItemID	\1201
TargetID:	4001
Row:	6
Column:	3
SheetName:	Sheet1

Once the configuration is completed, the designer can also use the **ICA Utilities** to test the simulation. The Row, Column and SheetName values are automatically populated when the designer runs the parameters in the System Dynamics Workbench in the **ICA Utilities**. The following information provides details describing the interaction components in accordance with a preferred embodiment.

Title	**Description**
Procedural tasks (w/drag drop)	Tasks which require the construction of some kind of report with evidence dragged and dropped to justify conclusions
Procedural tasks (w/o drag drop)	New task designs that are procedural in nature, have very little branching, and always have a correct answer.
Ding Dong task	Tasks that interrupt the student while working on something else. This template includes interviewing to determine the problem, and a simple checkbox form to decide how to respond to the situation.

Analyze and Decide (ANDIE) task	Most commonly used for static root cause analysis, or identification tasks. Developed on SBPC as a result of 3 projects of experience redesigning for the same skill.
Evaluate Options (ADVISE)	Used for tasks that require learner to evaluate how different options meet stated goals or requirements. Developed at SBPC after 4 projects experience redesigning for the same skill. Does not allow drag drop as evidence.
Run a company task	Time based simulation where student "chooses own adventure". Each period the student selects from a pre-determined list of actions to take. Developed on SBPC as a simplified version of the BDM manage task.
Use a model task	When user needs to interact with a quantitative model to perform what if analysis. May be used for dynamic root cause analysis - running tests on a part to analyze stress points.
ICA Dynamic Meeting Task	Developed on BDM to mimic interaction styles from Coach and ILS EPA. Supports dynamic-rule based branching - will scale to support interactions like EnCORE defense meetings and YES.
Manage Task	Time based simulation where student manages resources. Human Resources Management, managing a budget, manage an FX portfolio.
QVID Static Meeting Task	Developed on Sim2 to support agenda-driven meetings where user is presented with up to 5 levels of follow-up questions to pursue a line of questioning. As they ask each question, it's follow-ups appear.
Flow Chart Task	Will support most VISIO diagrams. Developed on Sim2 to support simple flow chart decision models.
QVID Gather Data Component	Static flat list of questions to ask when interviewing someone. Not used when interviewing skills are being taught (use QVID Static meeting task). Supports hierarchical questions and timed transcripts.
Journalize Task	Created to support simple journal entry tasks with up to 2 accounts per debit or credit.
New Complex Task	A new task that requires a simulation component

The system dynamics engine is the interface between the simulation model, the system dynamics model, the simulation database and the Intelligent Coaching Agent. The system dynamics engine is of interest to the designer so that she can understand the mechanics of it. Once the designer has constructed the simulation model (Excel Spreadsheet), built the system dynamics model (PowerSim) and configured all of the parameter inputs and parameter outputs, a test can be performed using the workbench included in the ICA Utilities (refer to ICA Utilities documentation). The developers, in turn, need to implement the calls to the system dynamics engine in the GBS application that is being built. The following list identifies the files that need to be included in the Visual Basic project to use the system dynamics engine.